

# A study of clinical profile of the patients with intestinal obstruction at tertiary health care center

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## Abstract

**Background:** Acute intestinal obstruction is one of the most common surgical emergencies in all age groups, all throughout the world. Mode of presentation is similar in all but cause varies in each age group. The diagnosis and management of the patient with intestinal obstruction is one of the most challenging emergencies that a general surgeon can come across. **Aims and Objectives:** To Study clinical profile of the patients with intestinal obstruction at tertiary health care center. **Methodology:** This was a cross-sectional study carried out in the department of Surgery at tertiary health care centre during the two year period i.e. January 2016 to January 2018 in the patients admitted with suspected clinical features of Intestinal Obstruction, all such patients undergone various investigations like X-ray, USG abdomen, CBC, and pathological like FNAC and Histopath wherever necessary and the patients with intestinal obstruction were confirmed and their etiology was determined. The collected data is arranged in tabular form with percentages. **Result:** The majority of the patients were in the age group of 40-50 i.e. 30.11%, followed by 30-40 were 26.88%, 50-60 were 18.28%, >60 were 9.68%, <20 were 3.23%. The majority of the patients were Male i.e. 55.91 % and Females were 44.09%. Most common etiology found was Postoperative adhesions in 26.88% followed by Hernias 20.43%, Volvulus Stricture in 16.13%, Tuberculosis in 12.90%, Malignancy in 10.75%, Faecal impaction in 7.52 %, Stricture- 3.22, Bands in 2.15 %. The most common cause of Malignancy Ca sigmoid in 27.27%, followed by Ca rectum and Ca colon in 18.18%, Lymphoma, Ca ovary, Ca endometrium, Ca pancreas in 9.09%. **Conclusion:** It can be concluded from our study that the majority of the patients were in the age group of 40-50 and most common etiology was Postoperative adhesions, Hernias, Volvulus, Tuberculosis, Malignancy in the Ca sigmoid and Ca rectum were most common.

**Key Words:** Intestinal obstruction, Acute abdomen, Etiology of Intestinal obstruction.

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## INTRODUCTION

Acute intestinal obstruction is one of the most common surgical emergencies in all age groups, all throughout the world.<sup>1</sup> Mode of presentation is similar in all but cause

varies in each age group. The diagnosis and management of the patient with intestinal obstruction is one of the most challenging emergencies that a general surgeon can come across. Whether caused by hernia, postoperative adhesions, neoplasm or related biochemical disturbances, intestinal obstruction of either the small bowel or large bowel continues to be a major cause of morbidity and mortality.<sup>2</sup> Earlier, mortality and morbidity were very high. Now with better understanding of pathophysiology, improvement in radiological techniques of diagnosis, high degree of refinement in correction of fluid and electrolyte imbalance, introduction of antibiotics for effective bacteriological control, introduction of techniques in gastrointestinal decompression, new surgical principles, as in large bowel obstruction, introduction of on-table lavage, and resection and primary anastomosis, has

replaced staged procedures and number of days in hospital stay.<sup>3</sup> Improvement in the field of anaesthesia has also contributed to lowering the morbidity and mortality. This is further influenced by the clinical setting and related comorbidities.<sup>4</sup> In earlier part of century mortality and morbidity was very high. Now with better understanding of pathophysiology, improvement in radiological techniques of diagnosis and high degree of refinement in correction of fluid and electrolyte imbalance, introduction of antibiotics to effective bacteriological control, introduction of techniques in gastrointestinal decompression, new surgical principles and primary anastomosis has replaced staged procedures and number of days in hospital stay. Improvement in field of anesthesia has all contributed to lowering the morbidity and mortality. Mechanical obstruction is the cause of about 5 to 15% of cases of severe abdominal pain of sudden onset requiring admission to hospital.<sup>5,6</sup> About 3.2 million cases of bowel obstruction occurred in 2015 which resulted in 264,000 deaths.<sup>3,4</sup> Both sexes are equally affected and the condition can occur at any age.<sup>5</sup> Bowel obstruction has been documented throughout history with cases detailed in the Ebers Papyrus of 1550 BC and by Hippocrates.<sup>7,8</sup>

### MATERIAL AND METHODS

This was a cross-sectional study carried out in the department of Surgery at tertiary health care centre during the two year period i.e. January 2016 to January 2018 in the patients admitted with suspected clinical features of Intestinal Obstruction, all such patients undergone various investigations like X-ray, USG abdomen, CBC, and pathological like FNAC and Histopath wherever necessary and the patients with intestinal obstruction were confirmed and their etiology was determined. The collected data is arranged in tabular form with percentages.

### RESULT

**Table 1:** Distribution of the patients as per the age

Age	No.	Percentage (%)
<20	3	3.23
20-30	11	11.83
30-40	25	26.88
40-50	28	30.11
50-60	17	18.28
>60	9	9.68
<b>Total</b>	<b>93</b>	<b>100.00</b>

The majority of the patients were in the age group of 40-50 i.e. 30.11%, followed by 30-40 were 26.88%, 50-60 were 18.28%, >60 were 9.68%, <20 were 3.23%.

**Table 2:** Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	52	55.91
Female	41	44.09
<b>Total</b>	<b>93</b>	<b>100.00</b>

The majority of the patients were Male i.e. 55.91 % and Females were 44.09%.

**Table 3:** Distribution of the patients as per the most common etiology

Etiology	No.	Percentage (%)
Postoperative adhesions	25	26.88
Hernias	19	20.43
Volvulus	15	16.13
Tuberculosis	12	12.90
Malignancy	10	10.75
Faecal impaction	7	7.52
Stricture	3	3.22
Bands	2	2.15
<b>Total</b>	<b>93</b>	<b>100.00</b>

Most common etiology found was Postoperative adhesions in 26.88% followed by Hernias 20.43%, Volvulus Stricture in 16.13%, Tuberculosis in 12.90%, Malignancy in 10.75%, Faecal impaction in 7.52 %, Stricture- 3.22, Bands in 2.15 %.

**Table 4:** Distribution of the patients as per the various types of malignancy in Obstruction

Malignancy	No.	Percentage (%)
Ca sigmoid	3	27.27
Ca rectum	2	18.18
Ca colon	2	18.18
Lymphoma	1	9.09
Ca ovary	1	9.09
Ca endometrium	1	9.09
Ca pancreas	1	9.09
<b>Total</b>	<b>11</b>	<b>100.00</b>

The most common cause of Malignancy Ca sigmoid in 27.27%, followed by Ca rectum and Ca colon in 18.18%, Lymphoma, Ca ovary, Ca endometrium, Ca pancreas in 9.09%.

### DISCUSSION

Acute intestinal obstruction is one of the most common causes for surgical admissions worldwide. The etiology varies; however, adhesions<sup>9</sup> appear to be the most common cause in the Western world as well as in parts of Asia and Middle East.<sup>10,11</sup> However, in our study, obstructed hernia rather than adhesions appeared to be the most common cause followed by large bowel neoplasms as has been seen earlier in previous reports.<sup>12,13</sup> Intestinal tuberculosis also appeared to be an important factor in the etiology given the high prevalence of tuberculosis in the

Indian subcontinent as well as the rising incidence of HIV in the Indian population.<sup>14,15</sup> The majority of the patients were in the age group of 40-50 i.e. 30.11%, followed by 30-40 were 26.88%, 50-60 were 18.28%, >60 were 9.68%, <20 were 3.23%. The majority of the patients were Male i.e. 55.91 % and Females were 44.09%. Most common etiology found was Postoperative adhesions in 26.88% followed by Hernias 20.43%, Volvulus Stricture in 16.13%, Tuberculosis in 12.90%, Malignancy in 10.75%, Faecal impaction in 7.52 %, Stricture- 3.22, Bands in 2.15 %. The most common cause of Malignancy, Ca sigmoid in 27.27%, followed by Ca rectum and Ca colon in 18.18%, Lymphoma, Ca ovary, Ca endometrium, Ca pancreas in 9.09%. This was similar to Vijayakumaran Pillai<sup>16</sup> they found Males were found to be affected much more than females. In 70% of patients, small bowel was the bowel predominantly involved. Adhesions were the commonest etiological factor followed by obstructed hernias. Most of the patients underwent operative management.

## CONCLUSION

It can be concluded from our study that the majority of the patients were in the age group of 40-50 and most common etiology was Postoperative adhesions, Hernias, Volvulus, Tuberculosis, Malignancy in the Ca sigmoid and Ca rectum were most common.s

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